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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,162	11/21/2003	Jacob Lahijani	FL0233USNA	2357
23906 7590 11/19/2010 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1122B 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER FLETCHER III, WILLIAM P	
			ART UNIT 1715	PAPER NUMBER
			NOTIFICATION DATE 11/19/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/719,162	<b>Applicant(s)</b> LAHIJANI, JACOB	
	<b>Examiner</b> William P. Fletcher III	<b>Art Unit</b> 1715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,4-7,14-16 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-7, 14-16, and 18-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed after final on 9 August 2010 has been entered.
2. Claims 1, 4-7, 14-16, and 18-22, are pending.

### ***Claim Objections***

3. Claim 22 is objected to because of the following informalities: The amendment would change the claim from a composition/article claim to a process claims. Process claims stand withdrawn from consideration as a non-elected invention without traverse 8 June 2006. (The amendment proposed by the Primary Examiner at page 3 of the Office action mailed 9 July 2010 would have been inappropriate for the same reason.) Appropriate correction is required. The Primary Examiner suggests the following:

Claim 22 (currently amended) A ~~[[R]]~~rotolining of the composition of claim 1.

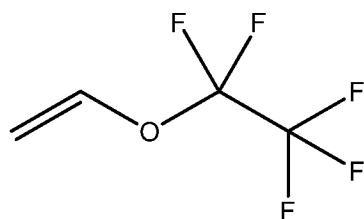
### ***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1, 4-7, 14-16, and 18-22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazumi (JP 2904593) in view of Buckmaster (US 4,714,756) and Buckmaster et al. (EP 0 226 668; previously cited).

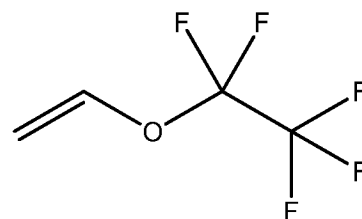
A. Kazumi teaches a dry, melt-flowable [0020] rotolining (RL) composition [0015] for RL the interior of a hollow steel article [0013] consisting essentially of a

Art Unit: 1715

tetrafluoroethylene/perfluoroalkoxyethylene copolymer (TFE/PFA) [0016] and non-bubble-promoting [0007] metal powder [0016-0017]. PFA is the generic class of compounds to which perfluoro(ethylvinylether) (PEVE) belongs (i.e., PEVE = perfluoro(*ethoxy*ethylene):



perfluoroethylvinylether



perfluoroethoxyethylene

Kazumi further teaches that the metal powder constitutes 0.1-30 wt.-% of said composition, which encompasses the claimed ranges. A prior art range that encompasses a claimed range is *prima facie* obvious. See MPEP 2144.05. Furthermore, Kazumi teaches that the exact percentages used can affect the metal powder's usefulness in preventing bubbling; thus, it is a result-effective variable per MPEP 2144.05 which it would have been obvious to one skilled in the art to optimize by routine experimentation. Kazumi does not expressly teach: (i) That the PFA is specifically PEVE; (ii) That the copolymer is fluorine exposure-stabilized in the fashion claimed; (iii) That the copolymer has the particle characteristics claimed; or (iv) That the metal powder promotes adhesion and that the RL composition has the claimed peel strength.

B. With respect to (i) and (ii), Buckmaster '756 teaches a melt-flowable RL composition that is a copolymer of TFE/perfluoro(alkylvinylether) in which the alkyl group may be C1-C12, which includes ethyl, C2 [3:top]. Buckmaster '756

Art Unit: 1715

further teaches that this TFE/PEVE copolymer is treated with fluorine after formation to stabilize the copolymer to reducing bubbling of the PEVE during heat processing [2:33-38]. This is desirable because stabilized PEVE copolymers are less prone to the evolution of volatiles during further use [1:34-40]. Consequently, it would have been obvious to one skilled in the art to utilize PEVE since Kazumi is open to any PFA and Buckmaster expressly teaches PEVE as suitable for copolymerization with TFE to form a RL composition. Further it would have been obvious to one of ordinary skill in the art to have fluorine stabilized the TFE/PEVE copolymer as suggested by Buckmaster '756 in order to have made to copolymer less prone to the evolution of volatiles during further processing (i.e., during RL).

C. With respect to (iii), neither Kazumi nor Buckmaster '756 places a limitation on the particle size or sphere factor. Buckmaster et al. '668, previously cited, teaches a dry, melt-flowable composition of TFE/PEVE suitable for RL in which the TFE/PEVE particles have an average particle size of 200-300 micrometers and a sphere factor of less than 1.5 [3:10-15, for example]. Since neither Kazumi nor Buckmaster '756 expressly limit the particle size or sphere factor, one of ordinary skill in the art would have looked the prior art to find useable copolymer particles and it would have been obvious to one skilled in the art to modify the composition of Kazumi in view of Buckmaster '756 so as to utilize, as the TFE/PEVE particles, the particles having the particle size and sphere factor taught by Buckmaster et al. '668, motivated by the desire and

Art Unit: 1715

expectation of successfully providing a dry, melt-flowable RL composition of TFE/PEVE.

D. With respect to (iv), it remains the Primary Examiner's position that adhesion and peel strength is a physical property of the claimed composition, and that, because the prior art teaches all of the claimed compositional limitations, the composition of the cited prior art necessarily possesses the claimed adhesion and peel strength. In other words, if the claimed composition and that of the prior art do not have the same claimed peel strength, the difference *must* arise from some compositional and/or procedural limitation not claimed. Insofar as the metal powder is part of the composition and the RL composition adheres, it reads on *adhesion promoting*. Furthermore, Kazumi expressly discloses the desire to create a lining that adheres to the inner surface of the target to be coated [0003-0005]. This analysis is applicable to claim 18 as well.

E. With specific respect to claims 4, 6, 15, and 16, Kazumi teaches that the metal powder is Zn and/or contains Cu [0016].

F. With respect to claims 19 and 20, Buckmaster '756 also teaches that the stabilized PEVE has less than 80 unstable end groups per  $10^6$  carbon atoms in the polymer [4:21-45].

6. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazumi (JP 02-904593) in view of Buckmaster (US 4,714,756) and Buckmaster et

Art Unit: 1715

al. (EP 0 226 668; previously cited), as applied to claim 1 above, further in view of Saito et al. (US 5,397,831).

A. None of the previously cited references teaches that the metal powder is Sn. Saito teaches the use of Sn as a metal additive is well known in the art of RL bubble-free PFA [2:43-56]. Furthermore, the selection of a known material based on its suitability for its intended use is *prima facie* obvious. See *Sinclair & Carroll Co. v. Interchemical Corp.*, 65 USPQ 297 (1945). Thus it would have been obvious to one of ordinary skill in the art to have used a metal powder containing Sn in the process of Kazumi because it is recognized as a metal powder which will prevent bubbling of PFA during RL, as taught by Saito.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1715

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Phillip Fletcher III/  
Primary Examiner, Art Unit 1715

16 November 2010